

Please type a plus sign (+) inside this box → ☐

PTO/SB/01 (10-00)

Approved for use through 10/31/2002. OMB 0851-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**☒ Declaration  
Submitted  
with Initial  
Filing

OR

☐ Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

Attorney Docket Number

AP639US

First Named Inventor

HE, Gang

**COMPLETE IF KNOWN**

Application Number

Filing Date

Group Art Unit

Examiner Name

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Multi-Pass Tunable Optical Filter Using a Polarization Dependent  
Filter Element, and Multi-Pass Optics Therefor

(Title of the Invention)

the specification of which

☒ Is attached hereto

OR

☐ was filed on (MM/DD/YYYY)

as United States Application Number or PCT International

Application Number

and was amended on (MM/DD/YYYY)

(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
2,304,898	CA	04/07/2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.
60/195,204	04/07/2000	

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/01 (10-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**DECLARATION — Utility or Design Patent Application**

Direct all correspondence to:

☐ Customer Number  
or Bar Code LabelOR ☒

Correspondence address below

Name

Thomas Adams

Address

P.O. Box 11100, Station H

Address

Ottawa

Ontario

K2H 7T8

City

State

ZIP

Canada

613 828 0012

613 828 0024

Country

Telephone

Fax

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR:

☐ A petition has been filed for this unsigned inventor

Given Name

(first and middle (if any))

Gang

Family Name  
or Surname

HE

Inventor's  
Signature

Date

3 April 2001

Residence: City

Sainte-Foy

Quebec  
StateCanada  
CountryCanadian  
Citizenship

Mailing Address

823 De La Louisiane

Mailing Address

Sainte-Foy

Quebec  
StateG1X 3L4  
ZIPCanada  
Country

NAME OF SECOND INVENTOR:

☐ A petition has been filed for this unsigned inventor

Given Name

(first and middle (if any))

Daniel

Family Name  
or Surname

GARIÉPY

Inventor's  
Signature

Date

2 April 2001

Residence: City

Stoneham

Quebec  
StateCanada  
CountryCanadian  
Citizenship

Mailing Address

158 Ave. du Lac Est

Mailing Address

Stoneham

Quebec  
StateGOA 4P0  
ZIPCanada  
Country☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Please type a plus sign (+) inside this box →



PTO/SB/02A (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**DECLARATION****ADDITIONAL INVENTOR(S)**

Supplemental Sheet

Page \_\_\_ of \_\_\_

Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))

Family Name or Surname

Gregory Walter

SCHINN

Inventor's  
Signature6 April 2001  
Date

Residence: City

Quebec City

State

Quebec

Country

Canada

Citizenship

Canadian

Mailing Address

8 rue Garneau

Mailing Address

City

Quebec City

State

Quebec

ZIP

G1R 3V1

Country

Canada

Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))

Family Name or Surname

Martin

LAMONDE

Inventor's  
Signature6 April 2001  
Date

Residence: City

Quebec

State

Quebec

Country

Canada

Citizenship

Canadian

Mailing Address

394 St-Germain, Apt. 3

Mailing Address

City

Quebec

State

Quebec

ZIP

G1K 4N1

Country

Canada

Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))

Family Name or Surname

Inventor's  
Signature

Date

Residence: City

State

Country

Citizenship

Mailing Address

Mailing Address

City

State

ZIP

Country

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

Please type a plus sign (+) inside this box



PTO/SB/81 (10-00)

Approved for use through 10/31/2002. OMB 0851-0035

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number

Filing Date

First Named Inventor

HE. Gang

Group Art Unit

Examiner Name

Attorney Docket Number

AP639US

I hereby appoint:

☐ Practitioners at Customer Number

OR

☒ Practitioner(s) named below:

Place Customer  
Number Bar Code  
Label here

Name	Registration Number
Thomas Adams	31078

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Firm or  
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

☒ Applicant/Inventor.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

## SIGNATURE of Applicant or Assignee of Record

Name

Martin LAMONDE

Signature

Date

6 April 2001

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 4 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

Please type a plus sign (+) inside this box → ☐

PTO/SB/81 (10-00)

Approved for use through 10/31/2002. OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY OR  
AUTHORIZATION OF AGENT**

Application Number	
Filing Date	
First Named Inventor	HE, Gang
Group Art Unit	
Examiner Name	
Attorney Docket Number	AP639US

I hereby appoint:

☐ Practitioners at Customer Number 

OR

☒ Practitioner(s) named below:Place Customer  
Number Bar Code  
Label here

Name	Registration Number
Thomas Adams	31078

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Firm or  
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

☒ Applicant/Inventor.☐ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).**SIGNATURE of Applicant or Assignee of Record**

Name

Gang HE

Signature

Date

3 April 2001

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 4 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box



PTO/SB/81 (10-00)

Approved for use through 10/31/2002, OMB 0651-0035

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY OR  
AUTHORIZATION OF AGENT**

Application Number

Filing Date

First Named Inventor

HE. Gang

Group Art Unit

Examiner Name

Attorney Docket Number

AP639US

I hereby appoint:

☐ Practitioners at Customer Number
Place Customer  
Number Bar Code  
Label here

OR

☒ Practitioner(s) named below:

Name	Registration Number
Thomas Adams	31078

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Firm or  
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

☒ Applicant/Inventor.☐ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).**SIGNATURE of Applicant or Assignee of Record**

Name

Daniel GARIÉPY

Signature

Date

2 April 2001

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 4 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box 

PTO/SB/81 (10-00)

Approved for use through 10/31/2002. OMB 0651-0035

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY OR  
AUTHORIZATION OF AGENT**

Application Number

Filing Date

First Named Inventor

HE. Gatig

Group Art Unit

Examiner Name

Attorney Docket Number

AP639US

I hereby appoint:

☐ Practitioners at Customer Number 

OR

☒ Practitioner(s) named below:Place Customer  
Number Bar Code  
Label here

Name	Registration Number
Thomas Adams	31078

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Firm or  
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

☒ Applicant/Inventor.☐ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).**SIGNATURE of Applicant or Assignee of Record**

Name

Gregory Walter SCHINN

Signature

Date

April 6, 2001

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 4 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

# ASSIGNMENT

(All rights, all countries)

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged, each undersigned inventor does hereby confirm his sale, assignment, transfer and setting over, and does hereby sell assign, transfer and set over to:

**EXFO ELECTRO-OPTICAL ENGINEERING INC.**

(Assignee),

whose full post office address is:

**465 Godin Street, Vanier, Quebec, G1M 3G7, Canada**

its successors, assigns and legal representatives, his entire right, title and interest, including priority rights, for all countries in and to certain inventions as fully set forth and described in Canadian patent application No. 2,304,898 and corresponding United States provisional patent application, both filed April 7, 2000, and entitled: **MULTI-PASS TUNABLE OPTICAL FILTER USING A POLARIZATION-DEPENDENT FILTER ELEMENT, AND MULTI-PASS OPTICS THEREFOR** together with his entire right, title and interest in and to any and all Letters Patent which may issue or be re-issued for said inventions to the full end of the term for which each said Letters Patent may be granted:

AND hereby authorizes the issuance to said Assignee of any and all said Letters Patent not already issued as the assignee of his entire right, title and interest in and to the same, for the sole use and benefit of said assignee, its successors, assigns or legal representatives:

AND on behalf of himself and his executors and administrators, hereby covenants and agrees to do all such lawful acts and things and to execute without further consideration such further lawful assignments, documents, assurances, applications, and other instruments as may reasonably be required by said Assignee, its successors, assigns or legal representatives, to obtain any and all said Letters Patent, in any country, for said invention and vest the same in said Assignee, its successors, assigns or legal representatives.

EACH of the undersigned hereby grants the firm Thomas Adams & Assoc. the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of a patent office for recordation of this Assignment.

EXECUTED AT *Vanier*

THIS *23* DAY OF *May*

2000

*M. LeBlanc*  
Witness' Signature

*MICHEL LEALANC*  
Witness' Name

*Gang He*  
INVENTOR 1: GANG HE

EXECUTED AT *Vanier*

THIS *23<sup>rd</sup>* DAY OF *May*

2000

*Serge Richard*  
Witness' Signature

*Serge Richard*  
Witness' Name

*Daniel Gariépy*  
INVENTOR 2: DANIEL GARIÉPY



